This is a section of doi:10.7551/mitpress/14471.001.0001

The Perception Machine

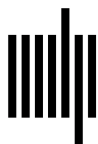
Our Photographic Future between the Eye and AI

By: Joanna Zylinska

Citation:

The Perception Machine: Our Photographic Future between the Eye and AI
By: Joanna Zylinska
DOI: 10.7551/mitpress/14471.001.0001
ISBN (electronic): 9780262376631
Publisher: The MIT Press
Published: 2023

The open access edition of this book was made possible by generous funding and support from MIT Press Direct to Open



The MIT Press

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

2 A Philosophy of After-Photography

Figure 2.1
Screenshot from Refik Anadol, *Archive Dreaming*, 2017.

> I'm not sure what photography is. It's everything and everywhere, like a spirit that's left its body. Photography is not tied to the camera—or any apparatus—anymore. As many thinkers have postulated, photography is now more of a state of being, an event. It has become a fiction; a fabrication. I know it when I see it; I can feel it in the air around me when it's happening, with or without an apparatus present. Maybe it's a statement of our surveilled and documented existences. We and the world around us are reconstituted in parallel image universes. It seems impossible to make work that doesn't use or acknowledge photography, because it's now an elemental part of being.
>
> Artist Victoria Fu in *Why Photography?*[1]

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

"Is Photography as We Know It Dying?"

Despite the proliferation of photographic images and the expansion of the "photographer" designation from professionals and hobbyists (aka "amateurs") to arguably "everyone," the question of photography's future haunts the image-making industry, its clients, and users—as well as those occupying that narrower sliver of photography's art-based milieu, which is to say photographic artists and curators. In November 2019 the popular photonews website Petapixel published an article about what it meant to be a photographer at the present time. The article, as is often the case with online "content" these days, featured a video conversation between photographer-journalists from cognate websites, Patrick Hall of Fstoppers and Pye Jirsa of SLR Lounge, titled "Is Photography as We Know It Dying?"[2] Aimed at a wide variety of visitors, websites such as Petapixel, Fstoppers, and SLR Lounge operate by delivering news, equipment reviews, and photography tutorials, but they are sustained by an active community of commentators and forum posters. Interestingly, the dynamic vitality of those websites' ecosystems is ensured by establishing and maintaining an informal boundary between the "pros" (usually evoked as an aspiration) and the "serious amateurs," all of whom distance themselves from "mere" phone photographers. This video conversation is worth looking at more closely because the issues it raised are indicative of the broader tendencies in current photographic consumption, both discursive and material. The debate will also provide us with some conceptual tools and ideas for how we can talk about photography today—and for how we can locate photography in disciplinary and technical terms. The positioning of photography between industry, art, and everyday practice, and its current framing through technologies, concepts, and metaphors drawn from computation and neuroscience, is the main concern of this chapter. Its main function is to lay theoretical and disciplinary foundations for talking about "our photographic future," while furnishing us with some conceptual building blocks for the construction of the "perception machine" in the rest of this volume. As part of this journey, I will take some tentative steps toward outlining what I will term "a philosophy of after-photography."

The key tendencies in photography identified by the two experts on the Petapixel website seemingly go against the grain of the beliefs held by photography websites' most faithful readers. Having acknowledged that

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

the digital has both democratized photography and raised the bar, Hall and Jirsa admit that photographic practice itself is changing, with a lot of things "falling to the wayside": heavy gear, strobes, complex editing. With the industry moving more and more toward phone photography, "all that matters is the final image," they conclude—a statement that must seem anathema to "serious photographers,"[3] whether artists or amateurs. This statement recognizes the fact that the ability to engage an audience and having a following matter more than any single image, with a photographer having to be "like a TV channel or TV show." The more nebulous categories of enjoyment and authenticity are said to have replaced the old-style expectations of technical perfection and expert professionalism. Confirming that photography *as we know it* is indeed dying, with that "we" referring to the upholders of the photographic tradition and expertise—which the core readers of Petapixel are largely expected to be—Petapixel author DL Cade nonetheless summarizes the analysis on an upbeat note: "As the bar to entry drops and more and more people outsource their creativity to the latest Instagram trend or some AI-powered post-processing slider, creativity and technical know-how are only becoming more rare and valuable than ever."[4]

This discussion has identified some important trends with regard to photographic practice today. These trends include miniaturization; the increased role of software in image-making, including at the image generation stage; closer integration between photographic gear, clothing, and the photographer's body—which is another step in what used to be known as "media convergence" and which now involves many photographers becoming one with their cameras; and, last but not least, the proliferation of images that are produced neither by nor for the human. Indeed, algorithmic image generation enabled by models such as DALL·E, Midjourney, or Stable Diffusion problematizes even further the agency of the photographer as image creator and copyright owner. Echoing Paul Virilio's argument from *The Vision Machine*, artist Trevor Paglen, who uses images from satellites, surveillance cameras, and AI databases in his work, goes so far as to argue: "Something dramatic has happened to the world of images: they have become detached from human eyes. Our machines have learned to see [w]ithout us."[5] In response to the question posed in one of his online contributions written for Fotomuseum Winterthur, "Is Photography Over?," Paglen claims that "'photography,' as it has been traditionally understood

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

in theory and practice, has undergone a transition—it has become something else, something that's difficult to make sense of within the existing analytic framework."[6]

A new analytic framework therefore needs to be envisaged—not just to understand photography but also to get a clearer picture of the world that is being imagined and imaged by it. Building on the legacy of ghost and spirit photography, a practice combining imagination and charlatanerie to make up for personal losses before the Great War, and collective loss in its aftermath, I suggest that photography and postdigital image-making can be mobilized today to help us imagine, visualize, and frame not just the present but also the future—and to image and imagine ourselves *as part of* that future. This link between photography, image-making, and imagination was already encapsulated at the end of the nineteenth century by French photographer Nadar in his poetic description of the supposed magic of the medium: "Everything that unhinges the mind was gathered together there: hydroscopy, bewitchment, conjuration, apparitions. Night, so dear to every thaumaturge, reigned supreme in the gloomy recesses of the darkroom, making it the ideal home for the Prince of Darkness. It would not have taken much to transform our filters into philters."[7]

Machine dreaming

Refik Anadol's *Archive Dreaming* (figures 2.1, 2.2), a haunting remediation of the photographic past in which we all become swept up in an image flow, offers a suitable illustration of the approach to photography adopted in this book. Drawing on the experience gained at Google's Artists and Machine Intelligence Program residency, Anadol collaborated with the SALT cultural center in Istanbul to revisit and reanimate its archive featuring images and documents concerning Ottoman culture. As part of this work, he mobilized machine learning algorithms to establish relations among 1,700,000 photographs and other documents included in the archive. The digitized images were then presented as part of an interactive and immersive media installation: surrounded by an "envelope" made up of curved screens, visitors navigated their journey via a panel while being enveloped by the mobile flows of images, texts, and data. The active experience, with the visitor seeing the images at different scales by "picking them up" from the wall to look at them up close and then returning them to their place, was akin

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

Figure 2.2
Screenshot from Refik Anadol, *Archive Dreaming*, 2017.

to a photographic dance. Yet the most interesting aspect of the installation was not its dreamy choreography with the human viewer at its center, but rather the fact that, while idle, the installation “dreamt” “of unexpected correlations among documents,” as well as producing some new visualizations in the process.[8] With machine intelligence continuing the labor of sifting through the huge database—a task too enormous for any human visitor to undertake on their own—the installation’s neural network took on the job not just of seeing at a nonhuman scale but also of redefining how to present material from a cultural repository whose size exceeded the cognitive capacity of a human user. A technological sublime for the AI age, *Archive Dreaming* enacted the limits of human perception and cognition, while offering the solace—and an aesthetic pleasure (at least for *this* human viewer)—of experiencing this impossibility as an all-encompassing yet strangely soothing sensation.

Anadol’s work encapsulates the key characteristics of the photographic landscape today. Foregrounding the impossibility of the human *seeing it all*, it points to the fact that images now come to us principally in flows to be experienced, rather than as single-frame pictures to be decoded. It also shows that the majority of images today are not generated with a human viewer in mind but are instead produced for this or that part of a distributed

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

planetary computational array. The framework adopted in my book builds on the prior work in which theorists, artists, and curators have proposed to venture beyond the photographic index and the photographic frame—and toward what used to be known as "the networked image"[9] but what should perhaps be more appropriately described now as "the platformed image." It is also aligned with scholarship that analyzes the current state of events in more ecological terms, shifting focus from the image itself to its machinic infrastructure.

There is an affinity here between my perception of the current moment and what Anthony McCosker and Rowan Wilken have called, in their book *Automating Vision*, "the new camera consciousness."[10] McCosker and Wilken trace back the origins of their concept to the awareness of camera presence at a time when stage performers had become cinema actors. And it is this role of enhanced camera experience as a result of the progressive automation of our lives that the two authors want to highlight with their term, drawing attention to the way smart camera and machine vision systems "make themselves *felt*."[11] McCosker and Wilken go on to explain that the "problem of camera consciousness is one of awareness and attention. Sometimes it's too much, sometimes it's not enough."[12] Importantly, this does not just mean for them the awareness of cameras' ubiquitous presence but also "a self-conscious reaction to their power to make visible, to reveal, to capture and hold their target and to fix it for scrutiny, analysis and judgment."[13] Yet McCosker and Wilken's book focuses specifically on the *social* impact of automation and machine vision via the study of smart cameras (in face recognition, drones, mobile media, and self-driving cars). Interestingly for my argument here, their concept of "camera consciousness" has clear neuroscientific connotations, but the authors do not extensively engage with work in cognitive psychology and neuroscience. In many ways their analysis of the operations of "seeing machines" in our automated society is more akin, thematically, to my earlier book *Nonhuman Photography*.[14] My concept of "the perception machine" outlined in the present volume is broader than McCosker and Wilken's "camera consciousness," embracing not only *machine* vision at the multiple levels of technical infrastructure, but also *human* perception and its reconfigurations—as well as the organization of society *as* an all-perceiving machine, in a way that goes beyond just examining the impact of technology *upon* society. It is therefore more in line with the mode of theorizing that posits all media as parts of an

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

"all-encompassing and indivisible"[15] process of mediation, of which "we" are also part—be it as singular subjects or a social ensemble.

Recognizing that photography is ubiquitous,[16] that it is not just everywhere but also even everyware,[17] my argument here embraces the vaporous, transient, yet (literally) atmospheric language of grids, networks, flows, streams, feeds, and clouds. We need to be mindful of the fact that this very language is a product of the current state of scientific knowledge and engineering, with the now dominant computational paradigm framing the debate in many disciplines and fields, from neuroscience, health, and IT through to policing and education. Science and engineering concepts such as automation, data (and metadata), databases, algorithms, AI, machine learning, and machine vision, which underpin this paradigm, end up shaping the way we describe and understand many cultural processes and artifacts. This tendency is evident in the recent turn in photography theory to the networked and mobile articulation of the image, coupled with the consideration of distributed images and infrastructures precisely in terms of data flows.

Yet the way scientists think—"including the questions they can ask and the experiments they can imagine—is partly framed and limited by technological metaphors,"[18] as pointed out by Matthew Cobb in his illuminating study, *The Idea of the Brain: The Past and Future of Neuroscience*. Those metaphors themselves are tightly coupled with the state of technical knowledge, including its discourses and vocabularies. This is not just how "scientists" think, of course, as the dominant modes of thinking about technology and their underpinning metaphors make their way to other spheres of society. Cobb points out that the metaphor of the "machine" has been fundamental for centuries in articulating scientific knowledge—be it about the human and human faculties or the universe—but the understanding of what that machine meant has also changed over time in response to emergent technologies, with consequences for ways in which new knowledge was being produced and framed. He offers an interesting example of such metaphorical journeying in neuroscience, focusing on the example of the brain:

> With the discovery that nerves respond to electrical stimulation, in the nineteenth century the brain was seen first as some kind of telegraph network and then, following the identification of neurons and synapses, as a telephone exchange, allowing for a flexible organisation and output. . . . Since the 1950s our ideas have been dominated by concepts that surged into biology from computing—feedback loops, information, codes and computation.[19]

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

Recognizing the validity of using the computational model to describe various functions of the brain, Cobb also highlights that many of the intuitions about how the nervous system "computes" things have turned out to be entirely wrong, because, unlike the computer upon which this model is premised, "the brain is not digital"—although it is "more like a computer than it is like a clock."[20] This is to say that technological metaphors borrowed from cognate experiments and practices can bring something new to the understanding of phenomena, while allowing for the emergence of novel conceptual and material connections.

The computer, the brain, and the imprint

There are two reasons I am drawing on Cobb's book on the story of the brain to explain the current register of photographic knowledge with its accompanying dominant metaphors, or, to put it in figurative terms, to explain photography's "word cloud." One is that photography has arguably been intrinsically linked with neuroscience since the medium's invention in the early nineteenth century. Teodora Cosman points out that the conceptualization of photography in terms of making impressions on a light-sensitive surface established a parallel with the way memory was understood to work: as a process of making imprints on the tissue of the brain.[21] The relationship between photography and neurology was mutually constitutive: Cosman indicates that French neurologist Jules Bernard Luys "used photography to create an iconography of the nervous centres, applying it not only as a tool but also as an experimental and analogic model of the functioning of memory."[22] This led to photography being seen as a process of making impressions on two levels: that of the light-sensitive substrate, resulting in an image, and that of the brain itself, producing memories. This notion of the photograph as a material imprint on a surface became encapsulated in one of the most fundamental concepts of photography theory: the index.[23] It was only with the emergence of digital photography toward the end of the twentieth century that the conceptual force of the index began to give way to other notions and modes of presenting the photographic medium. Traditionally (and literally) understood as *writing with light*, i.e., as making changes to a light-sensitive surface as a result of a chemical reaction driven by light's energy, in the digital age photography became a more superficial operation—in the sense that it was no longer seen as an intervention

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

in the material layers on which an image was to be imprinted, such as a metal plate or paper, but rather as rearranging immaterial digits of its code. In computational photography, light "is no longer interpreted as a direct impression of electromagnetic energy in the optical spectrum," but as "the weights and biases of an archive's afterglow," explains computer vision artist Adam Harvey.[24]

The second reason for my turning to Cobb's work is that neurological perspectives have become an increasing presence in the arts and humanities in recent years, especially when it comes to addressing problems of affect, perception, and cognition. Consequently, some sections of photography theory have entered a nested metaphorical loop created by computation and neuroscience, with the discursive framework of the latter partly shaped by photography. Yet the key aspect in Cobb's analysis to which I want to return now is his explanation of how technologies of a given period influence the conceptual and discursive frameworks through which everything else is perceived. This realization has led him to an important conclusion that, "by holding tightly to metaphors, *we end up limiting what and how we can think*."[25] Metaphors can thus be constraining as well as enabling, sending us down thought pathways and conceptual loops that reinforce the current state of knowledge. (My own turn to cybernetic and computational metaphors here to explain this process is a case in point.)

While it has been extremely productive and, dare I say, exciting to witness the introduction of the interwoven computational and neuroscientific language, with its metaphorical register of networks, flows, and feeds, into the study of photography in recent years, my assumption in this book is that this may not be enough. And thus, while I propose to explore the current framing of photography, especially in its digital guises, in computational and neuroscientific terms, I also want to test the limits of such framing. More importantly, though, I want to consider a possible opening toward *what and how we can think about the ongoing transformation of photography*—and about the perceptive processes enabled by and enabling photography, now and in the future. It is also in this sense that the book serves as an attempt to map out what I am calling "our photographic future."

Let me clarify that I am not positioning science here as a higher authority that can provide a corrective to our prior understanding of either photography or perception as developed in the humanities. Indeed, I would go so far as to claim that science is *by itself* incapable of providing a satisfactory

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

explanatory framework for either perceptual or imaging processes, precisely because, in its foundational assumptions, claims, discourses, and metaphors, it already relies on fields of knowledge and practices that exceed its remit, from philosophy and politics through to engineering and art. Yet, in recognition of the increased importance of scientific concepts in discussions about human and nonhuman imaging, I want to engage with those concepts, their legacies, and strictures—and also with the promises they bring to the humanities' understanding of how we see the world.

Looking at photography's epistemological and ontological significance, my book embraces the view of photography as existential, as a world-making force. We can recall here curator Marvin Heiferman's polyvocal manifesto *Photography Changes Everything*, in which he argues that "photographs don't only show us things, they do things. They engage us optically, neurologically, intellectually, emotionally, viscerally, physically."[26] In recognizing photography's transformative agency, Heiferman also acknowledges that the medium itself is in flux: "as photography changes everything, it changes itself as well."[27]

A philosophy of after-photography

To understand the full significance of this moment of change, and to be able to look into a future it may lead to, we need a way of framing photography that will let us capture that moment. As a first step in my efforts to develop a new way of framing the field, I will join Flusser on his journey "towards a philosophy of photography," with that "towards" (or "für" in its German original, *Für eine Philosophie der Fotografie*) signaling the open-endedness of the project.[28] Flusser is worth paying attention to not only because of his attempt to think about photography philosophically, but also, as discussed in the previous chapter, because he treated photography seriously *as a medium*, one located in the wider technological context of energy and communication flows. I argued there that Flusser's intimation may indeed be correct that writing as a "linear alignment of signs"[29] does not have much of a long-term future, because it is being increasingly replaced by more immediate—and more viscerally satisfactory—forms of information, image, and affect transfer. The culture of TL;DR, bite-sized Twitter wars, and politics by Internet meme all seem to indicate that his prophecy has perhaps already come to pass. Yet, if writing is a medium

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

that enables us to "think logically, calculate, criticize, pursue knowledge, [and] philosophize,"[30] it may be worth sticking with it for a little while yet. An attempt to philosophize about photography, even if it is to take images seriously, cannot just be conducted by means of images—although photographs do deserve more of a place in any philosophy of photography worth its (silver) salt.

The image and network cloud sketched out above will help me when taking some steps to develop a new way of framing the field. My overall ambition with this book is to interrogate the ongoing transformation of the photographic medium, from the transformation "of everything," as Heiferman suggests, to its own evolution—which will always be a coevolution with human and nonhuman agents. Practices such as photorealistic imagining in computer games and other forms of rendered images that "look like" photographs offer a backdrop to this enquiry. The uncertain provenience and ontology of various photographic artifacts today can be read in the context of the wider social anxieties about truth and authenticity at a time when digital media allow for an easy fabrication of deepfakes, from made-up news pictures and text-to-image algorithmic "art" through to realistic-looking lip-synched videos.

The theoretical intervention I want to make here involves outlining what I would like to call "a philosophy of after-photography." There is a critical dimension to this "afterness," a term proposed by Gerhard Richter to refer to "a particular figure of modernity, that of following, coming after, having survived, outlived, or succeeded something or someone."[31] For Richter afterness is a form of spectrality that involves a debt and a haunting to what precedes it: it is a transposition but not an overcoming. The afterness of photography I am proposing in this book is perhaps best encapsulated by Hubertus von Amelunxen's remark (made with a nod to Jean-François Lyotard): "After photography comes photography. But it is altered by the after."[32] Yet I also want to push through the modernist sense of the loss and trauma echoed in Richter's concept—and in the work of his philosophical interlocutors, from Hegel, Freud, and Benjamin through to Heidegger, Lyotard, and Levinas. While the experience of "loss, trauma, and survival; and the inexplicable emotions connected with living on"[33] are one aspect of the existential condition of photography I deal with in this volume, I am keen to mobilize a register of affects that go beyond the modernist binary of euphoria ("We have never had it so good!") and despair ("This

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

is the end!"): curiosity, contentment, amusement, glee, irony, frustration, anger, burnout, and stoic relief. The philosophy of after-photography (cos) plays (with) photography, while being serious about the wider conditions of its production—and of our own production and reproduction as subjects *through* photography in its visible and invisible guises.

Importantly, this (somewhat cumbersome perhaps) articulation differs from "post-photography," a term that has become prominent in the last decade to describe the novel condition of the photographic medium.[34] This latter term first made an appearance in photography theory in the early days of digital imaging and the accompanying shift to broadband connectivity. Liz Wells offered an overview of its use by theorists such as W. J. T. Mitchell and Kevin Robins,[35] who both treated the idea of "post-photography" somewhat dismissively, as overstating the claim about the supposed novelty of the digital. Fred Ritchin, in his tellingly titled 2009 book *After Photography*, referred to "post-photography" as part of the condition of the emergence of citizen photojournalism.[36] Ritchin's primary concern was the loss of the medium's authority and truth value as a result of photographs' increasingly uncertain authorship and their undetectable manipulation.

The debate on the similarities and differences between analog and digital photography, and on the rise of the role of those who used to be called "amateurs" in photographic production, eventually subsided, but the term "post-photography" caught a second wind in 2011 when artist and theorist Joan Fontcuberta put it in a manifesto written for the Spanish newspaper *La Vanguardia*. He argued that photography's historical mandate as a guardian of truth and memory, and its role as a witness, had come to an end. Photography was "whatever was left from photography."[37] (Let us note here that the abandonment of this mandate has not actually occurred among the digital-first generation that grew up surrounded by images, even though they have a much more knowing acceptance of the constructedness of images. People, especially young people, still use photographs on a daily basis, more than ever before, to show things and affects *as they supposedly are*, as evidenced by the Internet-era quip "pics or it didn't happen," with those pictures often being seen as *both* having been manipulated and having a veridical value.) In the introduction to *The Post-Photographic Condition* catalog for the 2015 Mois de la Photo à Montréal biennale, which Fontcuberta had been invited to curate in recognition of his role in taking

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

the debate on photography's future in a new direction, he wrote that "Post-photography is photography that flows in the hybrid space of digital sociability and is a consequence of visual overabundance. The iconosphere is no longer just a metaphor: we inhabit the image and the image inhabits us."[38]

Picking up on Fontcuberta's ideas, Camila Moreiras has defined the phenomenon of post-photography as standing for an "inorganic image: a composite of littered information—collected, ordered, layered, buried, stored and discarded."[39] Moreiras does use the term "after-photography" in her article, but she does so in a rather literal way, as a way of signifying leaving photography behind, whereas the concept of "post-photography" allows her to pose the question about "how to see an image beyond the visual."[40] In both cases, though, Moreiras, like many other theorists using the term "post-photography," is principally interested in what happens *to* the image, rather than in the wider condition of the world *affected by* photography. Thinking very much in this vein, in his 2014 photo-book *Post-Photography* journalist Robert Shore defined the concept as referring to artists' way of working with photographic images that do not involve any actual taking of them.[41] There are many other uses of this term in both the scholarly literature and photography criticism of the early twenty-first century, all of which converge around the balance of losses (of truth, order, anchoring, accountability, human agency) and gains (of data, volume, saturation, connectivity, sociality). What brings them together is that, in all of them, *post-photography indicates objecthood*: a set of practices (usually distributed and mobile) and their outcomes that depart from the traditional understanding of the photographic medium in indexical and representational terms, while channeling its legacy.

"After-photography," which is the term I propose to adopt, *points instead to temporality*. It signifies a time that has been shaped *by* photography, rather than any specific medium that developed *from* photography. It is a mode of thinking that is itself after-modernist, because it attempts to recuperate the future beyond melancholia and mourning. A philosophy of after-photography is thus *a mode of thinking and seeing for a future that will be photographic*—but in a way that we may not always be able to recognize as such. (There may not even be a unified "we" to enact such recognition.)[42]

Another reason to reach for a different term from the one that has underpinned the debate on photography's future so far is that, even though I appreciate the significance of the work undertaken under the cognate concepts in

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

photography and media theory, I am also mindful of Cobb's warning mentioned above against working with the familiar, "because we end up limiting what and how we can think."[43] Importantly, even though (or even precisely because) the moment I am analyzing here is designated as being temporally and materially located "after photography," *photography* remains my principal thought device and object of analysis—although, to reiterate, it is not so much its *objecthood* but rather its agential force and timeline that are of interest to me. No matter if we are talking here about analog differentiation in "patterns of light and shade,"[44] a record of intensities in a visual field in the form of an "array of integers,"[45] or—more controversially perhaps—a synthesized image that *looks like* a photograph, I retain the concept of photography to encapsulate all these objects and phenomena.

I call it photography, even if it hurts you

Already in 1992 William J. Mitchell stated that "with the appearance of digital camera systems the distinction between photography and computer graphics completely dissolved."[46] And thus for me *photography is first and foremost a percept*: it is what is perceived and hence named as photography, be it on the level of visuality (news images, pictures taken and processed with a mobile phone, the Instagram flow) or functionality (ID pictures used in security systems, photos in AI training databases such as ImageNet, QR codes), with the perceiver thus not always having to be human. In other words, "photography" functions in this book as a heuristic, one that is adopted in a way that may look somewhat unproblematic, but undertaken with a hope of solving some other, more complex problems about different ways of being and seeing. This approach builds on Mitchell's definition of photographs as informationally redundant objects characterized by an "unrelenting internal consistency," which is another way of saying that if *it looks like a photograph* to the human eye-brain array then it is one. Should this conceptual impurity be a problem for some readers, I want to join curators Marco De Mutiis, Katrina Sluis, and Jon Uriarte in their playfully perverse call, which is a simultaneous act of naming and disavowal: "You Must Not Call It Photography If This Expression Hurts You."[47] In a spirit of obstreperous disavowal (to which the title of this section is testament), I am happy to take this gesture even further. We also need to bear in mind that perception is not just a matter of logical, even if not always conscious,

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

working out of rules and resolution of contradictions: it is also an affective process underpinned by desire, fantasy, and all sorts of other acknowledged and unacknowledged attachments. So my choice of this heuristic is also an affective declaration: I *want* photography to go on—even if, at the end of the day, it may end up functioning operationally not like "photography" at all.

My position may seem like a repudiation of Andrew Dewdney's call in *Forget Photography* to abandon the term "photography" altogether because it serves as "a barrier to understanding the altered state of the default visual image"[48] in the age of computation and online media. Yet there is much alignment between my and Dewdney's respective ways of thinking. For Dewdney "photography" has become a zombie that does not want to die, overstaying its welcome while preventing any meaningful engagement with the new condition of the image (which he prefers to call "network image"), beyond the conceptual constraints of art history and photography theory. We could say that photography insists on being seen, while obscuring its own infrastructural and infrapolitical conditions of possibility. Dewdney's argument is about more than just terminology or disciplinary constraints. Rather, he is deeply concerned about the historical injustice photography has wielded as part of the project of modernity. Photography was not just "an innocent bystander in the historical events it has performed,"[49] as he poignantly observes: it was a participating agent in those events' constitution. As we know from scholars such as Ariella Aïsha Azoulay, Jonathan Beller, Tina Campt, and Mark Sealy,[50] photography was foundational to the establishment and perpetuation of the colonial, imperial, and capitalist nexus which is still with us—but which we cannot just "unsee" because any attempt to do this remains too focused on photographic representations. We could thus say that we cannot see photography for all the photographs that abound. The only way to approach this visual and ethical aporia is to cut through it, hoping for something not just *new* but also *better* in an ethicopolitical sense (although the nature of this goodness will still need to be elaborated).

Dewdney is of course aware that any attempt at forgetting anything, including photography, inaugurates an active process of remembrance, especially of photography's multiple uses—and that his appeal is therefore bound to fail. He calls his rhetorical provocation "a polemic," one described in the final pages of his book as "a productive strategy for understanding photography afresh."[51] Bringing in mediation as an ontological condition

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

of both our life, “in which hybrids are manifest,” and the life of all hybrid images, including photographs, he points out that “the image no longer stands outside of what it previously sought to represent, or mediate.”[52] While I share Dewdney’s recognition of the ontological impurity of the image landscape and also appreciate the ethical demand of his provocation, I cannot help remaining suspicious of such heroic theoretical gestures—and of their own implicit modernist impulse. Many a man has declared the end of an era, pronounced a radical turn, and declared a paradigm shift—with such pronouncements nevertheless falling on deaf ears of the user base, which is usually too unruly, too preoccupied, or indeed too hybrid to just do what the critic asks of it. Also, while the critique of the inhumane uses that photography has been put to, often in the name of humanism, is more than justified, would we not then need to bury or forget many other structuring devices of our modern *episteme*: the camera, the computer, the pen, the printed book? While I thus understand Dewdney’s disappointment with the fact that “photography’s once radical modernist promise” has now become “a conservative force,”[53] something is arguably lost in this diagnosis. This something is the exuberant pleasure that many still derive from taking, sending, receiving, and editing photographs, from having their lives photographically imaged, from living in and through the camera eye. Perhaps the critic who has forgotten how to be joyful, for whom the disappointment “motivated by an enduring frustration with successive deformations of the revolutionary spirit of modernity since 1968, then living through and embracing the condition of postmodernity, only to find [himself] back in a culture of deep conservatism and reaction,”[54] has thus obscured the potential delight of living with and in media.

The figure of the perception machine I am working with through this book does recognize the imperial-colonial-capitalist structuration of the state, technical, and cultural apparatus that we live in and that shapes us, but it does not ignore or try to squash the flows of pleasure and desire as affective and potentially political countercurrents to (or within) the machine’s operations. There is something else: photography is more than just a zombie that refuses to go away: this “nineteenth-century way of looking,” as Harvey pointed out, informs and haunts “the ways computer vision interprets and misinterprets the world today and into the future.”[55] Photography thus not only shapes our experiences and lives but also furnishes platforms; it is both a hidden *and* constitutive content of machine vision

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

databases that spawn algorithms aimed at getting machines to learn to be not just "like us" but also "more than us." This is why, claims Harvey, photographic practice and expertise are not going away: "Photographers have a new and important role to play today in shaping the datasets that shape algorithms, which in turn reflect how we see the world and each other. Photographers, as one of the primary visual data creators, can affect the way people see the world by changing the way computers see the world because we now see the world through computers, and computers in turn see the world through us."[56] The perception machine reveals the ambiguity of photographs and other technical objects—which are always, as we have learnt from Simondon, Stiegler, and many anticapitalist and postcolonial theorists, also agential forces. To concede this is to accept that any simple forgetting or rejection of the structuring tools of modernity will not do, because there is no safe position outside of them. It is not just the image that is hybrid, but we ourselves too—and so is the world of which we are part. Photography is still very much part of this world. But it may, just maybe, help us also envisage a better one.

"We haven't seen anything yet"

To recap, my primary concern in the book is not so much an ontology of the photographic image, although some diagnostic work on *what is happening to photographs and other mechanically produced images* today will be undertaken in what follows, but rather a photographic future. I am mindful here of David Campany's warning that, "if you start attributing temporalities to technologies or platforms, before long you end up making a whole set of presumptions about how viewers interact with them. It can be reactionary and very passive."[57] I am therefore more interested in *what is happening to us humans*—and *to what we humans have called the world*, with its plethora of other inhabitants and forces—as surrounded or even shaped by photographic and after-photographic images. Drawing on the atmospheric imagery of picture clouds and data flows outlined earlier, we can conclude that this world *as we know it* can be defined as a universe of (technical) images.[58] In other words, a philosophy of after-photography embraces the formative role of imaging, including photography in all its historical and technical incarnations, in the shaping of the world—but this is a much stronger claim than the one about photography's *influence upon* the world. I am wary

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

of overstating my case here, or perhaps even being accused of smuggling some form of species chauvinism through the back door of my inquiry into humans' relationship with images in the world, as if *we* were somehow separate *from* it. I also recognize, of course, that images are not the only agential force worth reckoning with. Yet I will go so far as to claim that images cannot ever be fully discretized from our human affective, cognitive, and material frameworks and modes of framing "the world"—and, even more strongly, that the formation of images through perception is a driving force of life in various organisms, from people through to paramecia. Imaging is therefore assumed to be a primary and constitutive force of life, and a condition of the emergence of intelligent behavior. Consequently, I see images as existing with us humans in a dynamic relationship of mediation, being constitutive of the formation of our memory, perception, cognition, and consciousness—and also of our world-building. We could say that the philosophy of after-photography proposed here is first and foremost interested in the ontology of the photographic event rather than that of the photographic object, even if the nature of this event—its temporality, frequency, and scale—will needed to be subjected to an investigation.

The Perception Machine is therefore designed as a reckoning with the force of the photographic legacy, imagery—and imagination. It is also an attempt to re-view and re-vision ourselves as photographic agents and subjects, at a time when our future as the dominant species is being increasingly put into question, be it by neural networks or image networks, virus clouds or data clouds. There is a lot at stake in this re-vision, but there is also a lot to look forward to. I want to finish this chapter by embracing Paglen's joyfully exuberant proclamation, which could also be read as a warning:

> Without question, the 21st Century will be a photographic century. Photography will play a more fundamental role in the functioning of 21st Century societies than 20th Century practitioners working with light-sensitive emulsions and photographic papers could have ever dreamed. So while in one sense photography might be "over," in another, it's barely gotten going. And we haven't seen anything yet.[59]

The following chapters will examine in more detail what we may see while investigating the role of the perception machine in calibrating, regulating, automating, and opening up all these different modalities of "seeing," in humans and machines.

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024

MIT Press Direct

© 2023 Massachusetts Institute of Technology

This work is subject to a Creative Commons CC-BY-NC-ND license.

Subject to such license, all rights are reserved.

The MIT Press would like to thank the anonymous peer reviewers who provided comments on drafts of this book. The generous work of academic experts is essential for establishing the authority and quality of our publications. We acknowledge with gratitude the contributions of these otherwise uncredited readers.

This book was set in ITC Stone Serif Std and ITC Stone Sans Std by New Best-set Typesetters Ltd.

Library of Congress Cataloging-in-Publication Data

Names: Zylinska, Joanna, 1971- author.
Title: The perception machine : our photographic future between the eye and AI / Joanna Zylinska.
Description: Cambridge, Massachusetts : The MIT Press, [2023] | Includes bibliographical references and index.
Identifiers: LCCN 2022050332 (print) | LCCN 2022050333 (ebook) | ISBN 9780262546836 (paperback) | ISBN 9780262376624 (epub) | ISBN 9780262376631 (pdf)
Subjects: LCSH: Photography—Philosophy. | Digital images—Social aspects. | Image processing—Digital techniques. | Artificial intelligence.
Classification: LCC TR183 .Z955 2023 (print) | LCC TR183 (ebook) | DDC 770.1—dc23/eng/20230405
LC record available at https://lccn.loc.gov/2022050332
LC ebook record available at https://lccn.loc.gov/2022050333

10 9 8 7 6 5 4 3 2 1

Downloaded from http://direct.mit.edu/books/oa-monograph/chapter-pdf/2171927/c001500_9780262376631.pdf by guest on 24 July 2024